

Date: Wednesday, 10/31/2007 3:26:10 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : FORWARD CAP
Job Number : 35475	
Estimate Number : 10724	
P.O. Number :	Part Number : D2647
This Issue : 10/31/2007 S.O. No. :	Drawing Number : D2647 REV F
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : SMALL /MED FAB	Drawing Revision : F
Previous Run : 29328	Material :
Written By :	Due Date : 12/5/2007 Qty: 100 Um: Each
Checked & Approved By : <u>07.11.01</u>	
Comment : Est Rev: 99.01.25 Re-format DM	
Est: E 06.11.15 waterjet EC	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M6061T6S080	6061-T6 .080 Sheet
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Comment: Qty.: 0.1677 sf(s)/Unit Total : 16.7685 sf(s)

Material: 6061-T6 QQ-A-250/11 or 5052-H32 QQ-A-250/8 0.080" Thick

Batch 100947 HB 07-11-5

2.0	WATER JET	FLOW WATER JET
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Comment: FLOW WATER JET

1-Cut as per Dwg D2647

Dwg Rev: F HB 07-11-5

Prog Rev: F

2-Deburr if necessary HB 07-11-5

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0	QC8	SECOND CHECK
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Comment: SECOND CHECK

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1
 Deburr

n/ Due At
 10/31/07

HB 07-11-5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 10/31/2007 3:26:10 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FORWARD CAP

Job Number: 35475

Part Number: D2647

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

6.0 *QC5* *counted*

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

BARCLAY *BE 07-11-06*

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07.11.07 *[Signature]*

Job Completion



U 07-11-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



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Date: Thursday, 16/11/2006 9:44:03 AM
 User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : FORWARD CAP
Job Number : 29328	
Estimate Number : 10724	
P.O. Number : N/A	Part Number : D2647
This Issue : 16/11/2006 S.O. No. : N/A	Drawing Number : D2647 REV F
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : SMALL /MED FAB	Drawing Revision : F
Previous Run : 29328	Material : N/A
Written By : _____	Due Date : 23/11/2006 Qty: 140 Um: Each
Checked & Approved By : _____	
Comment : Est Rev:D 99.01.25 Re-format DM Est: E 06.11.15 waterjet EC	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M6061T6S080	6061-T6 .080 Sheet
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Comment: Qty.: 0.1677 sf(s)/Unit Total : 23.4759 sf(s)
 Material: 6061-T6 QQ-A-250/11 or 5052-H32 QQ-A-250/8 0.080" Thick

m102723 21.1302
 Batch M100997x14 2.3478
 m1 06 11 16

2.0	WATER JET	FLOW WATER JET
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Comment: FLOW WATER JET
 1-Cut as per Dwg D2647
 Dwg Rev: F
 Prog Rev: F

m 06 12 01

(140)

2-Deburr if necessary

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

m 06 12 01

(140)

4.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

m 06 12 01

(140)

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1
 Deburr

m 06 12 04

(140)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 16/11/2006 9:44:03 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FORWARD CAP

Job Number: 29328

Part Number: D2647

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06/12/04 (140)

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: WS

06/12/05 (140)

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

06/12/06 (140)

Job Completion



C 206/12/04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

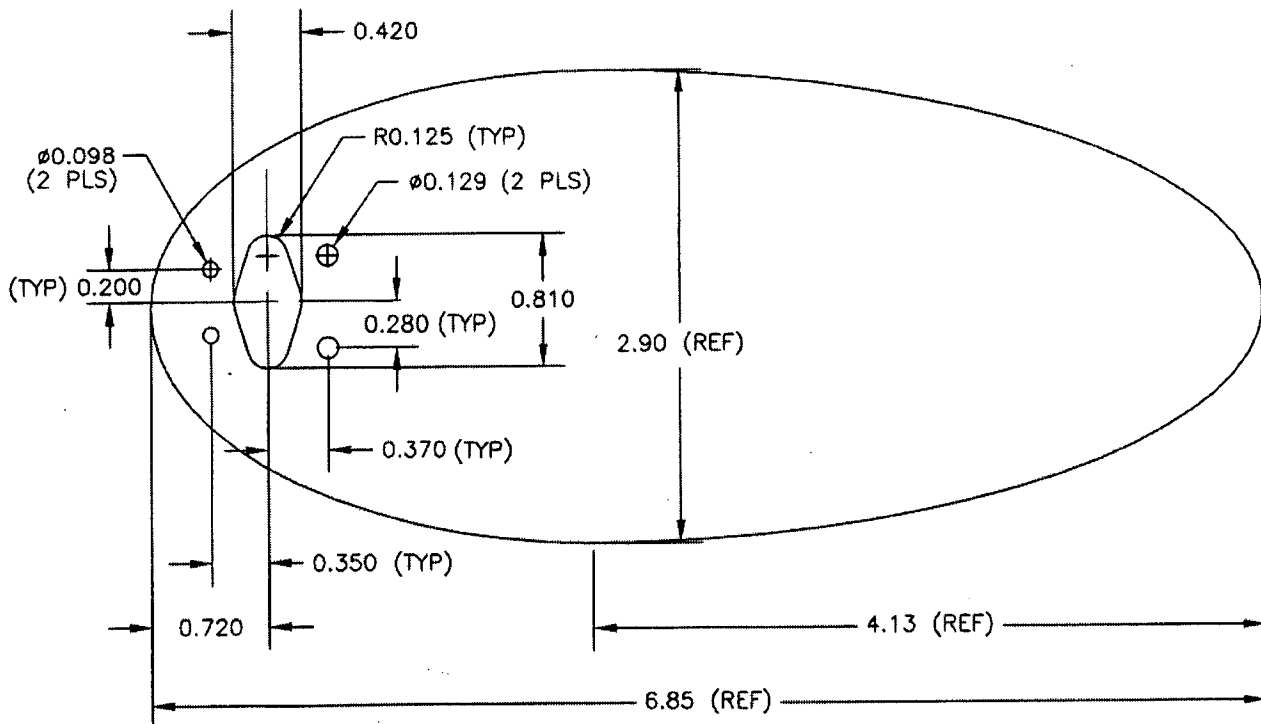
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN #	DRAWN BY RT	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED #	APPROVED #	DRAWING NO. D2647	REV. F SHEET 1 OF 1
DATE 00.05.26		TITLE CAP	SCALE NTS
A	97.03.25	NEW ISSUE	
B	97.06.27	CHANGED SHAPE	
C	97.09.15	REMOVE FRONT PLATE	
D	97.11.06	ADD RIVET HOLES	
E	98.01.15	ADD 5052 MATERIAL (TSR A245)	
F	00.05.26	MAKE FROM D2794	

RELEASED
00.06.09



THIS PART CAN BE MADE FROM D2794

MATERIAL: 6061-T6 (QQ-A-250/11) OR
5052-H32 (QQ-A-250/8) 0.080 THICK
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO 29328

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Date: Friday, 11/18/2005 10:10:18 AM
 User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : FORWARD CAP
Job Number : 24842	
Estimate Number : 10724	
P.O. Number : N/A	Part Number : D2647
This Issue : 11/18/2005 S.O. No. : N/A	Drawing Number : D2647 REV F
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : MACHINED PARTS	Drawing Revision : F
Previous Run : N/A	Material : (To be made in multiple of 7)
Written By : SEE COMMENT Below	Due Date : 12/20/2005 Qty: 100 Um: Each
Checked & Approved By : SEE COMMENT Below	
Comment : Est Rev:D 99.01.25 Re-format DM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M6061T6S080	6061-T6 .080 Sheet
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Comment: Qty.: 1.9877 sf(s)/Unit Total : 198.7650 sf(s)
 Material: 6061-T6 QQ-A-250/11 or 5052-H32 QQ-A-250/8 0.080" Thick

Batch 176843 119.36
 Ep 05/12/12 105

2.0	SHEAR	SHEAR
-----	-------	-------



Comment: SHEAR
 Cut Blanks: 7.100 X 3.200

Ep 05/12/12 36 119
 105

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1
 Machine as per folio D2647 & Dwg D2647

Ep 05/12/12 105
 142

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Ep 05/12/12 142

5.0	QC8	SECOND CHECK
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Comment: SECOND CHECK

Ep 05/12/12 112

6.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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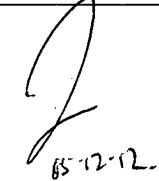

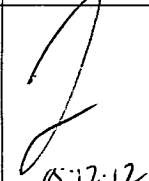
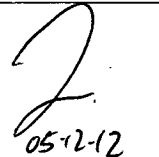
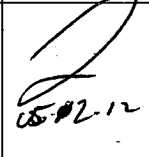

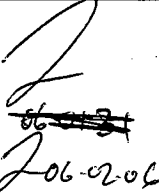

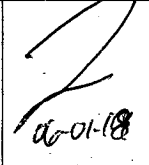


Comment: SMALL & MEDIUM FAB RESOURCE 1
 Deburr SAG 06.01.23 ml

89

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2647 PAR #: _____ Fault Category: Production / machine ^{parts} NCR: Yes No DQA: 2 Date: 06/02/07
 QA: N/C Closed: 2 Date: 06.02.09

NCR: <u>24842</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
05/12/12	# 3.0	Stack of 7 scrap (parts) Parts moved while machin		Scrap and Destroy and Replace	Ed 05/12/12	 05-12-12		 05-12-12
05/12/12	# 3.0	one stack (7 parts) has Slot @ 0.790" instead @ 0.810"	CP 05/12/15 per Q51412	PARTS OK		 05-12-12	CP 05-12-15 per Q51412	 05-12-12
06-01-18	3.0	#40(0.05) holes were not drilled in caps. Drill bit broke in 1 stack and machinist didn't notice holes were not drilled in the remaining stacks (6). 23 parts scrap. holes are messed up, not oversized.		Cleco D2680-04/ nut plate to cap and drill manually AS per Aug. Scrap and destroy damaged parts. Machinists to inspect parts as they come off the C.N.C. to check tools for damage.	SAP 06/02/07 06/02/01	 06-02-06		 06-01-18

NOTE: Date & initial all entries

Date: Friday, 11/18/2005 10:10:18 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FORWARD CAP

Job Number: 24842

Part Number: D2647

Job Number:



Seq. #:

Machine Or Operation:

Description :

7.0

QC5

INSPECT WORK TO CURRENT STEP



206-02-06

Comment: INSPECT WORK TO CURRENT STEP

8.0

PACKAGING 1

PACKAGING RESOURCE #1



206-02-06

Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: LG

206/02/07

Job Completion



Inspection Level 21
Suc 06/02/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

□□□□□□□□

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Nov 17, 2005
03:30 pm

Work Order No	: 0024842	Department Code:	
Project Name	: D2647	Burden Flags	: NNNNNNNN
Project For	: WK550	WO Status	: Open
Work Order Type	: Main	Invoice State	: Not Invoiced
Main WO Number	:	Invoice Date	:
House Part Number	: D2647	Invoice Number	:
Description	: Cap	Invoice Amount	: 0.00
Manufactured	: Yes	Order Entry No	:
Amount Req'd	: 100	OE Value	: 0.00
Amount Done	: 0	Est Margin	: 0.000%
Start Date	: 11-17-05	Actual Margin	: 0.000%
Est Finish Date	: 12-20-05		
Act Finish Date	:		
Drawings Req'd	: No		
Ok for Approval	:		
Approval Rec'd	:	\$0 Posted to Finished Goods	

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	0.00	0.00	0.00	0.00	0.00
Engineering Hours	0.00	0.00	0.00		
Engineering Cost	0.00	0.00	0.00	0.00	0.00
Production Hours	0.00	0.00	0.00		
Production Cost	0.00	0.00	0.00	0.00	0.00
Packaging Hours	0.00	0.00	0.00		
Packaging Cost	0.00	0.00	0.00	0.00	0.00
OverHead Hours	0.00	0.00	0.00		
OverHead Cost	0.00	0.00	0.00	0.00	0.00
CNC Hours	0.00	0.00	0.00		
CNC	0.00	0.00	0.00	0.00	0.00
Misc. Hours	0.00	0.00	0.00		
Misc.	0.00	0.00	0.00	0.00	0.00
Burden	0.00	0.00	0.00		
Total Cost	0.00	0.00	0.00		
Margin	0.000	0.000			
Selling Cost	0.00	0.00			

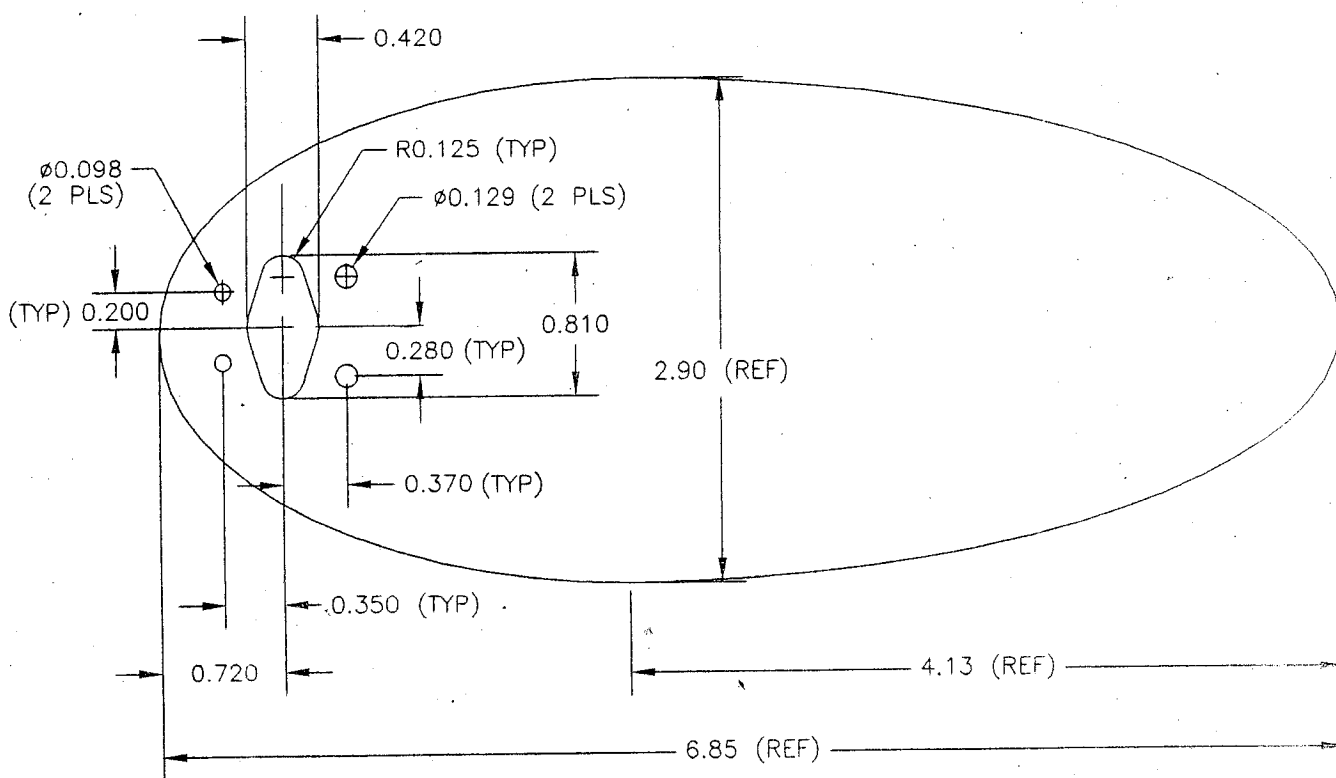
	Estimated	Actual
Labour Hrs/Amount Done	0.00	0.00
Profits/(Loss)	0.00	0.00



DESIGN <i>[Signature]</i>	DRAWN BY <i>RF</i>	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2647	REV. F SHEET 1 OF 1
DATE 00.05.26		TITLE CAP	SCALE NTS
A	97.03.25	NEW ISSUE	
B	97.06.27	CHANGED SHAPE	
C	97.09.15	REMOVE FRONT PLATE	
D	97.11.06	ADD RIVET HOLES	
E	98.01.15	ADD 5052 MATERIAL (TSR A245)	
F	00.05.26	MAKE FROM D2794	

RELEASED
00.06.01 *[Signature]*

CONTROL TO 7



THIS PART CAN BE MADE FROM D2794

MATERIAL: 6061-T6 (QQ-A-250/11) OR
5052-H32 (QQ-A-250/8) 0.080 THICK
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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Re D2647 Cap.txt

From: David Shepherd [davids@dartaero.com]
Sent: December 15, 2005 3:25 PM
To: Chris Provenca
Subject: Re: D2647 Cap

As long as the nutplate fits through, I think they are good. I would accept them.

FYI, I never got this because my email never got changed to dshepherd@dartaero.com.

David

----- Original Message -----

From: "Chris Provenca" <cprovenca@dartaero.com>
To: <davids@dartaero.com>
Sent: Thursday, December 15, 2005 1:10 PM
Subject: RE: D2647 Cap

> Any word on this?

>

> -----Original Message-----

> From: Chris Provenca [mailto:cprovenca@dartaero.com]
> Sent: December 12, 2005 2:19 PM
> To: 'dshepherd@dartaero.com'
> Subject: D2647 Cap

>

> David,

>

> D2647 Cap, that's the front cap for the 206 skidtubes, the 0.810" dimension

> for the width of the slot for the MS21069L4 nutplate is 0.790" for about 7 parts.

>

> The MS21069L4 nutplate spec says the nutplate is 0.786" wide. I checked with a nutplate, it still fits through but it is very close.

>

> I'm thinking they're OK, but they should check when assembling that everything fits together OK. They can always widen the slot if need be.

>

> Sincerely,

> Chris Provenca

> DART Aerospace Ltd.

> Email..cprovenca@dartaero.com

> Phone...613-632-3336

> Fax.....613-632-4443

>

>